

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2000-NM-333-AD; Amendment 39-12850; AD 2002-16-11]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Boeing Model 777 Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 777 series airplanes, that requires inspection of certain aft axle pivot pins of the main landing gear (MLG) for heat damage and either reworking of damaged pins or replacement of damaged pins with new or serviceable pins. This action is necessary to prevent breakage of the aft axle pivot pin of the MLG, which could overload the center axle, causing the tires to blow out upon landing, and could disengage the aft axle so that it jams the gear in the wheel well, preventing proper extension of the MLG. This action is intended to address the identified unsafe condition.

**DATES:** Effective September 20, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 20, 2002.

**ADDRESSES:** The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, PO Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Technical Information: Suzanne Masterson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2772; fax (425) 227-1181.

Other Information: Judy Golder, Airworthiness Directive Technical Editor/Writer; telephone (425) 687-4241, fax (425) 227-1232. Questions or comments may also be sent via the Internet using the following address: [judy.golder@faa.gov](mailto:judy.golder@faa.gov). Questions or comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 777 series airplanes was published in the Federal Register on January 4, 2002 (67 FR 541). That action proposed to require inspection of certain aft axle pivot pins of the main landing gear (MLG) for heat damage and either reworking of damaged pins or replacement of damaged pins with new pins.

## **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

## **Clarify Inspection Method**

One commenter requests that the FAA revise paragraph (a)(2) of the proposed AD because the description of one of the appropriate inspection methods as a "magnetic particle inspection" is incomplete. The commenter states that the term should be changed to "metallurgical inspection."

We partially concur with the commenter's request. We acknowledge that the magnetic particle inspection is only one part of the inspection procedures described in Figure 2 of Boeing Special Attention Service Bulletin 777-32-0029, dated May 18, 2000. However, we find that the term "metallurgical inspection" is also not fully descriptive or inclusive of all of the steps in the inspection process. For clarification of the acceptable inspection methods, we have revised the wording of paragraph (a)(2) of this final rule to state that the required inspection "must be done either by the Barkhausen Noise Inspection method for chromium-plated parts, or by following all of the procedures in Figure 2 of the service bulletin (including nital etching and a magnetic particle inspection), in accordance with the service bulletin."

## **Allow Installation of Serviceable Pins**

One commenter requests that we revise paragraph (a)(2)(ii) of the proposed AD to allow installation of a serviceable aft axle pivot pin. The commenter states that this paragraph is confusing because it may be interpreted to allow installation only of the same aft axle pivot pin removed from the MLG or a new pin. The commenter would like to be allowed to remove the existing pin, and install either a new pin or a pin that has been inspected in accordance with the proposed AD.

We concur that both paragraphs (a)(2)(i) and (a)(2)(ii) of this AD need to be clarified as the commenter describes. It is not our intention to prohibit installation of a serviceable pin that has been inspected. Therefore, we have revised paragraphs (a)(2)(i) and (a)(2)(ii) of this final rule to allow installation of a new or serviceable aft axle pivot pin in the MLG. We have also revised the Summary section of this AD accordingly.

## **Extend Compliance Time for Follow-on Inspection of Pivot Pin**

One commenter requests that we extend the compliance time for the follow-on inspection for heat damage of any aft axle pivot pin with an EGL prefix, which would be required by paragraph (a)(1)(ii) of the proposed AD. The commenter states that operators should be allowed to remove and inspect the pins at the next maintenance opportunity, rather than "prior to further flight," as long as the action is done within the 18-month compliance time.

We concur that we need to clarify the compliance time for the follow-on removal and inspection of the aft axle pivot pin described in paragraph (a)(1)(ii) of this AD. Inspecting an affected aft axle pivot pin for heat damage within 18 months after the effective date of this AD is acceptable for compliance with this AD. We have revised paragraph (a)(1)(ii) of this AD to clarify our intent.

## **Clarify Paragraph (a)(1)**

One commenter suggests that we revise paragraph (a)(1) for clarification. The commenter states that an operator was confused by the applicability of that paragraph, "For airplanes which have line numbers 1 through 68 inclusive (designated as Group 1 airplanes in the service bulletin) and on which the aft axle pivot pin of the MLG has been replaced prior to the effective date of this AD." The operator interpreted this as meaning that the paragraph applies to airplanes with line numbers (L/Ns) 1 through 68 and higher. The commenter suggests a comma after the parenthetical phrase. We concur and have revised paragraph (a)(1) accordingly.

## **Credit for Actions Accomplished Previously**

One commenter requests that we revise the proposed AD to provide credit for airplanes on which the actions in Boeing Special Attention Service Bulletin 777-32-0029 were accomplished before the effective date of the AD. The commenter notes that, in the service bulletin, the manufacturer recommends compliance within 18 months after service bulletin release. Thus, many operators have already done the inspections in the service bulletin. The commenter states that the wording of the proposed AD would require operators that have already complied with the proposed requirements to request an alternative method of compliance (AMOC).

For similar reasons, the same commenter requests that we remove the airplane with L/N 1 from the applicability of this AD. The commenter points out that the "Group 1" inspection described in the service bulletin was accomplished on this airplane before it was delivered, and no subject aft axle pivot pin was found.

We do not concur that any change is necessary. We give credit for actions accomplished before the effective date of an AD by means of the phrase "Compliance: Required as indicated, unless accomplished previously," which appears in every AD. If an operator's maintenance records show conclusively that the aft axle pivot pin installed on an airplane has been inspected per the referenced service bulletin and found to be acceptable, no further action is required.

Specifically with regard to the airplane with L/N 1, though that airplane may have been delivered with a pin that is not subject to this AD, it is possible that a subject pin could be installed on that airplane after delivery. Therefore, L/N 1 must be included in the applicability of this AD, so that it is subject to paragraph (b) of this AD, the "Spares" paragraph, which prohibits installation of a subject aft axle pivot pin unless it has been inspected per this AD.

We have made no change to the final rule related to these requests.

## **Eliminate Inspection in Spares Provision**

One commenter requests that we eliminate the inspection specified in paragraph (b), the "Spares" paragraph, of the proposed AD. The commenter states that the proposed requirement would impose an unnecessary inspection on all aft axle pivot pins with an "EGL" prefix, rather than only the suspect pins. The commenter notes that Boeing Special Attention Service Bulletin 777-32-0029, dated May 18, 2000, was issued to address a finite number of pins, which were manufactured between November 1996 and October 1999. The commenter states that the root cause of the defect in this set of pins was identified and the supplier has corrected its process accordingly. The commenter is concerned about forcing operators to inspect pins produced after the process was corrected in October 1999.

Similarly, a second commenter requests that we revise paragraph (b) of this AD to exempt aft axle pivot pins purchased from the manufacturer after the release date of Boeing Special Attention Service Bulletin 777-32-0029. The commenter notes that pins purchased from the manufacturer after the release of the service bulletin should not be subject to the identified unsafe condition. The commenter indicates that the manufacturer has advised that it is not necessary to inspect such pins.

We do not concur with these requests. While we have learned that the manufacturer is working to develop a method of tracking the subject pins, no such system is currently in place, so it is possible that some of the subject pins may have been procured as spares. Thus, we find it necessary to require inspection of any aft axle pivot pin having a serial number with the prefix "EGL." If a system is in place to track the pins, operators may request approval of an alternative method of compliance in accordance with paragraph (c) of this AD. No change to the final rule is necessary in this regard.

## **Conclusion**

After careful review of the available data, including the comments noted above, we have determined that air safety and the public interest require the adoption of the rule with the changes previously described. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

## **Cost Impact**

There are approximately 263 Model 777 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 73 airplanes of U.S. registry will be affected by this AD, that it will take approximately 4 work hours per airplane to accomplish the required inspection, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$17,520, or \$240 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

## **Regulatory Impact**

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

## **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **Sec. 39.13 [Amended]**

2. Section 39.13 is amended by adding the following new airworthiness directive:

# AIRWORTHINESS DIRECTIVE

Aircraft Certification Service  
Washington, DC



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.airweb.faa.gov/rgl](http://www.airweb.faa.gov/rgl)"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2002-16-11 Boeing:** Amendment 39-12850. Docket 2000-NM-333-AD.

**Applicability:** Model 777 series airplanes, line numbers 1 through 263 inclusive; certificated in any category.

**Note 1:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent breakage of the aft axle pivot pin of the main landing gear (MLG), which could overload the center axle, causing the tires to blow out upon landing, and could disengage the aft axle so that it jams the gear in the wheel well, preventing proper extension of the MLG, accomplish the following:

## Inspection

(a) Within 18 months after the effective date of this AD: Perform the actions specified in paragraph (a)(1) or (a)(2) of this AD, as applicable, in accordance with Boeing Special Attention Service Bulletin 777-32-0029, dated May 18, 2000.

(1) For airplanes which have line numbers 1 through 68 inclusive (designated as Group 1 airplanes in the service bulletin), and on which the aft axle pivot pin of the MLG has been replaced prior to the effective date of this AD: Inspect the serial number of the pivot pin.

(i) If the serial number of the pivot pin does not have the prefix of EGL, no further action is required.

(ii) If the serial number of the pivot pin does have the prefix of EGL, within 18 months after the effective date of this AD, perform the actions required by paragraph (a)(2) of this AD.

(2) For airplanes which have line numbers 69 through 263 inclusive (designated as Group 2 airplanes in the service bulletin): Remove the aft axle pivot pin, remove the lube insert from the aft axle pivot pin, and inspect the aft axle pivot pin for heat damage. The inspection must be done either by the Barkhausen Noise Inspection method for chromium-plated parts, or by following all of the procedures in Figure 2 of the service bulletin (including nital etching and a magnetic particle inspection), in accordance with the service bulletin.

(i) If heat damage is found by the inspection required by paragraph (a)(2) of this AD: Prior to further flight, re-work the existing aft axle pivot pin, re-install the existing lube insert, and re-install the re-worked aft axle pivot pin or install a new or serviceable aft axle pivot pin in the MLG, in accordance with the service bulletin.

(ii) If no heat damage is found by the inspection required by paragraph (a)(2) of this AD: Prior to further flight, re-install the existing lube insert and re-install the existing aft axle pivot pin or install a new or serviceable aft axle pivot pin in the MLG, in accordance with the service bulletin.

## **Spares**

(b) After the effective date of this AD, no person shall install an aft axle pivot pin having a serial number with the prefix "EGL" in the MLG, unless the pivot pin has been inspected as required by paragraph (a) of this AD.

## **Alternative Methods of Compliance**

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

## **Special Flight Permits**

(d) Special flight permits may be issued in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

## **Incorporation by Reference**

(e) The actions shall be done in accordance with Boeing Special Attention Service Bulletin 777-32-0029, dated May 18, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, PO Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

## **Effective Date**

(f) This amendment becomes effective on September 20, 2002.

Issued in Renton, Washington, on August 7, 2002.

Vi Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-20510 Filed 8-15-02; 8:45 am]

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